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IS 4436 (1989): Jute Bagging for Wrapping Cotton Bales [TXD 3: Jute and Jute Products]

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"Knowledge is such a treasure which cannot be stolen"

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Indian Standard

JUTE BAGGING FOR WRAPPING COTTON BALES — SPECIFICATION

(*First Revision*)

भारतीय मानक

कपास की गाठें भरने के लिये पटसन का कपड़ा – विशिष्टि

(पहला पुनरीक्षण)

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards on 6 April 1989, after the draft finalized by the Jute and Jute Products Sectional Committee had been approved by the Textile Division Council.

This standard, first published in 1967, has been revised to take cognizance of the experience gained and the developments that have taken place in the use of jute bagging for wrapping cotton bales in USA. In this revision, the requirements for length, width, mass (g/m) at 16 percent moisture regain, ends per dm, picks per dm and tex (grist) of warp and weft have been modified.

Jute bagging for wrapping cotton bales covered by this standard is mainly used by some importing countries for wrapping cotton bales and such baggings are not used within the country for packing cotton bales where hessian fabric conforming to Type 2 of IS 2818 (Part 3) : 1971 'Specification for Indian Hessian : Part 3 213 and 270 g/m² at 16 percent contract regain (*first revision*)' has been prescribed.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

JUTE BAGGING FOR WRAPPING COTTON BALES — SPECIFICATION

(*First Revision*)

1 SCOPE

1.1 This standard prescribes constructional details and other particulars of jute bagging generally used in the wrapping of cotton bales.

2 REFERENCES

2.1 The Indian Standard IS 5476 : 1986 'Glossary of terms relating to jute (*first revision*)' is a necessary adjunct to this standard.

3 TERMINOLOGY

3.1 For the purpose of this standard, the definitions given in IS 5476 : 1986 shall be made applicable.

4 GENERAL REQUIREMENTS

4.1 The jute bagging manufactured specifically for cotton bale covering shall be plain woven, not containing any hard fibre, such as, sisal, any kind of salt, or other corrosive or hygroscopic material.

5 SPECIFIC REQUIREMENTS

5.1 The jute bagging shall conform to the physical requirements as laid down in Table 1.

6 PACKING

6.1 The jute bagging shall be packed as agreed to between the buyer and the seller.

7 SAMPLING

7.1 Unless otherwise agreed to between the buyer and the seller, the procedure for sampling shall be as given in Annex B.

Table 1 Physical Requirements of Jute Bagging
(*Clauses* 5.1, 8.1 *and* B-2.2)

Sl No.	Characteristic	Requirement	Method of Test
i)	Length	244·0 cm, *Min* 254·0 cm, *Max* or 254·0 cm, *Min* 264·0 cm, *Max*	A-2
ii)	Width	122·0 cm, *Min* 132·0 cm, *Max*	A-3
iii)	Mass at 16 percent moisture regain, g/m	600 ± 75 g	A-4
iv)	Ends/30·5 cm	96, *Min*	A-5.1
v)	Picks/30·5 cm	48, *Min*	A-5.2
vi)	Tex[1] (Grist[2]) of :		
	a) Warp	1138 tex (33 grist), *Min*	A-6.1
	b) Weft	690 tex (20 grist), *Min*	A-6.2

NOTE — The ends and picks per unit length are also known as 'warp yarn count' and 'weft yarn count' respectively in some countries, particularly in USA.

1) Tex = mass in grams of 1 000 m of yarn.

2) Grist = mass in pounds of 1 spyndle (14 400 yd) of yarn.

8 CRITERIA FOR CONFORMITY

8.1 The lot shall be considered as conforming to the requirements of the standard if all the test samples of jute bagging for wrapping cotton bales satisfy the requirements as laid down in Table 1.

ANNEX A

(*Table* 1)

METHODS OF TEST

A-1 GENERAL

A-1.1 All tests may be carried out in the prevailing atmospheric conditions with relative humidity between 40 and 90 percent.

A-2 LENGTH

A-2.1 Lay the sample flat on a smooth horizontal surface. Remove the creases and wrinkles from the sample but without stretching it.

Measure the length of the sample directly along both the selvedges using a measuring stick, steel tape or other suitable graduated device. The average of the two measurements rounded to the nearest centimetre shall be taken as the length of the sample.

A-3 WIDTH

A-3.1 Lay the sample flat on a smooth horizontal surface. Remove the creases and wrinkles, if any, from the sample but without stretching it. Measure the width perpendicular from selvedge to selvedge at three places, using a measuring stick, steel tape or other suitable graduated device. Make one measurement at the centre of the sample and the other two measurements at approximately 30'5 cm from each end of the sample. The average of the three measurements, rounded to the nearest centimetre, shall be taken as the width of the sample.

A-4 MASS

A-4.1 Determine the mass in gram, length in centimetre and the average moisture regain of the sample by the use of a suitable moisture meter. Calculate the mass in gram per metre of the bagging at 16 percent moisture regain by the following formula:

$$W = \frac{w \times 116}{100 + M} \times \frac{k}{l}$$

where

$W =$ mass in gram per metre of jute bagging at 16 percent moisture regain,

$w =$ mass of the sample in gram,

$M =$ average moisture regain percent,

$k =$ 100 for calculating mass in gram per metre, and

$l =$ length of the sample in centimetre.

A-5 ENDS AND PICKS

A-5.1 Ends per 30'5 cm

Count the number of warp ends in the width of the sample including the selvedges at each end of the sample. Divide the average of the two measurements by the width in centimetre as determined above and this multiplied by 30'5 cm shall be the number of ends per 30'5 cm.

A-5.2 Picks per 30'5 cm

Count on each sample, the number of weft yarns over a measured length of 91'5 cm. The number so obtained divided by 3 shall be the picks per 30'5 cm.

A-6 TEX (GRIST) OF YARN

A-6.1 Tex of Warp Yarn

Remove 10 warp yarns spaced equally across the width of the sample. Measure and cut each to a length of 1'4 m and collect a total length of 14 m. Weigh the 14 m of warp yarns in gram. Determine the average moisture regain in the sample. Calculate the tex of warp yarn by the following formula:

$$T = W \times \frac{116}{100 + M} \times 71'4$$

where

$T =$ tex of warp yarn at 16 percent moisture regain,

$W =$ mass in gram of 14 m warp yarn in the sample, and

$M =$ average moisture regain percent.

NOTES

1 For calculating the grist of warp yarn remove 10 warp yarns spaced equally across the width of the sample. Measure and cut each to a length of 1'5 yd and collect a total length of 15 yd of warp yarns. Weigh the 15 yd warp yarns in ounce. Determine the average moisture regain in the sample. Calculate the grist of warp yarn by the following formula:

$$G = \frac{W \times 116}{100 + M} \times 60$$

where

$G =$ grist of warp yarn at 16 percent moisture regain,

$W =$ mass in ounce of 15 yd of warp yarn in the sample, and

$M =$ average moisture regain percent.
(1 yd = 0'914 4 m or 914'4 mm; 1 oz = 28'349 5 g)

2 Additional tests shall be made, when necessary, to obtain values for the tex (grist) of warp yarn, which are representative of the sample.

A-6.2 Tex of Weft

Remove slightly more than 14 m of unbroken weft from the sample which may be obtained by winding on a measuring reel avoiding any overlapping. Weigh the 14 m of weft in gram. Determine the average moisture regain of the sample. Calculate the tex of weft by the following formula.

$$T = \frac{W \times 116}{100 + M} \times 71'4$$

where

$T =$ tex of weft at 16 percent moisture regain,

$W =$ mass in gram of 14 m of weft in the sample, and

$M =$ average moisture regain percent.

2

NOTES

1 For calculating the grist of weft, remove slightly more than 15 yd of unbroken weft from the sample which may be obtained by winding on a measuring reel avoiding any overlapping. Weigh the 15 yd of weft in ounce. Determine the average moisture regain in the sample. Calculate the grist of weft by the following formula:

$$G = \frac{W \times 116}{100 + M} \times 60$$

where

G = grist of weft at 16 percent moisture regain,

W = mass in oz of 15 yd of weft in the sample, and

M = average moisture regain percent.

2 Additional tests shall be made, when necessary, to obtain values for the tex (grist) of weft yarn, which are representative of the sample.

ANNEX B

(*Clause* 7.1)

SAMPLING

B-1 LOT

B-1.1 All the bales of jute bagging for wrapping cotton bales purporting to be of specified dimensions and quality and containing definite number of pieces delivered to one buyer against one despatch note shall constitute a lot.

B-2 SAMPLING PROCEDURE

B-2.1 Sampling of Bales

For assessing the conformity of the bales to the requirements of this specification, the number of bales to be selected from the lot shall be as follows.

No. of Bales in the Lot	*No. of Bales to be Drawn and Opened for Inspection*
Up to 15	2
16 „ 50	3
51 „ 150	5

NOTE — If the number of bales in a lot exceeds 150, the same shall be taken as a separate lot comprising of bales maximum up to 150.

B-2.2 Sampling of Bagging Pieces (or Cuts)

The number of bagging pieces (cuts) to be selected out of the bales selected in B-2.1 for testing against the characteristics as laid down in Table 1 shall be 10. The pieces (cuts) selected shall cover all the bales selected.

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